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ABSTRACT

In this study 65 preservice physical education teachers were randomly assigned to a variable, semi-variable, and non-variable field experience group. All subjects completed observational, instructional, and student teaching field experiences. The variable group completed experiences in urban and suburban schools at different educational levels. Semi-variable group members completed experiences in one setting at different levels or at one level in different settings. No variety was experienced by the non-variable group. Subjects were pre- and posttested on selected personality and attitudinal factors. Significant increases were found in the degree of authoritarianism for the semi- and non-variable groups and in preference for psychomotor objectives for the semi-variable group. No changes were revealed in teaching style preference. Comparisons at the conclusion of the field experiences indicated no significant difference between groups in degree of authoritarianism, educational objectives preference, and teaching style preference. Degree of field experience variability had no effect on changes in the selected personality and attitudinal factors among preservice physical education teachers. (Author)

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CHANGES IN SELECTED CHARACTERISTICS OF PRE-SERVICE TEACHERS FOLLOWING VARIABLE, SEMI-VARIABLE, AND NON-VARIABLE FIELD EXPERIENCES

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The current literature of teacher education includes two sequential themes: (1) the problem of educating a general practitioner who is relevant to the needs and crises of the times; and (2) as a solution to this problem, the theme of experiential teacher education (11). A recent description of the most innovative trends in teacher education includes field-center instruction, early and varied field experiences, and clinical or practicum experiences (2)(3). It is apparent that the primary goal of experiential teacher education is to change the trainee's behavior; that is, changes in pre-service teachers' knowledge, skills, attitudes, and values which have been determined essential for effective teaching. Although pre-service teachers are reluctant to change, there is empirical evidence to support the use of field experiences in teacher education programs which are early, often, and varied to help overcome the limited risk-taking and resultant lack of change found among pre-service teachers.

Horowitz (4) found that schools could change student teacher attitudes in as little as two weeks. Sandgren and Schmidt (10) investigated the problem: Do the attitudes of teachers change as a result of practice teaching? Significant increases in attitude scores were revealed following practice teaching as

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measured by the MTAI. In a comprehensive study of pre-service teachers, Sandefur (9) concluded that behavioral changes in prospective teachers can be more readily effected by programs of professional education that stress direct involvement of the prospective teacher in laboratory-field experiences. The Ohio Department of Education recognized and supported these conclusions by requiring new standards for the preparation of teachers. Pre-service teachers must satisfactorily participate in a series of carefully planned, supervised, and evaluated field-based experiences. In addition, these field-based experiences must be completed in a variety of urban and suburban or rural settings (8).

It is against this background that the present study was designed to determine the effects of variable field experiences on selected personality and attitudinal factors of pre-service physical education teachers. It was hypothesized that variable field experiences would result in greater changes in personality and attitudinal measures of pre-service teachers than non-variable field experiences.

PROCEDURES

Subjects for this study were 65 men and women undergraduate physical education majors at Cleveland State University. During a curriculum and methods block course offering, these pre-service physical education teachers were randomly assigned to one of three treatment groups: (1) variable field experience; (2) semi-variable field experience; and (3) non-variable field experience. The non-variable treatment group served as the control. All subjects completed field experiences which consisted of three separate experiences; two during the course offering and the third being student teaching. The first experience was a one-week, 20 hour observational field experience; the second was a two-week, 40 hour instructional field experience; and the third was a ten-week, 300 hour student teaching experience. Subjects in the

variable group (N = 20) completed a variety of field experiences in urban and suburban schools and at different educational levels ranging from grades 7 to 12. The experience was also varied with respect to program offering, facilities, and characteristics of cooperating teachers. Semi-variable group members (N = 25) completed field experiences in either one school setting (urban or suburban) at different educational levels or at one educational level in different school settings. For example, pre-service teachers in this group may have been exposed to an urban and suburban junior high school or a junior and senior high school within the same urban school system. Members of the non-variable, control group (N = 20) completed field experiences with no variety. In this case, all three field experiances were completed at the same school or at schools within an urban or suburban district at the same educational level.

All subjects were pre- and posttested on selected attitudinal and personality measures. Pre-service teachers' personalities were described along an authoritarian-equalitarian dimension by the California F Scale (1). The authoritarian personality structure has evolved as one of the more provacative, social-psychological concepts, and the California F Scale, based upon this concept, is one of the most widely used instruments. It has been suggested that teachers' classroom behavior on an authoritarian-equalitarian dimension can change and be predicted with fair accuracy from scores on the F Scale (5). Attitudinal data collected included pre-service teachers' preference for cognitive, affective, and psychomotor educational objectives. An inventory previously constructed and validated (6) was used to measure quantitatively the relative emphasis that teachers place on physical education objectives from each of the three domains. An inventory was also constructed and administered to determine pre-service teachers' value of and preference for teaching styles which included command, task, reciprocal, individual program, guided

discovery, and problem solving (7). Subjects' responses to a series of questions were used to obtain a teaching style preference score on a command to problem solving style continuum.

RESULTS

Pretest data were analyzed with an ANOVA to test the presence of a significant difference between the field experience treatment groups at the beginning. Results of the ANOVA indicated there was no significant difference ($p > .15$) between the groups for the personality scale, educational objectives preference, and teaching style preference (Table 1).

Results of comparisons within treatment groups are shown in Table 2. The variable field experience group showed no significant changes in the personality and attitudinal factors, although subjects' scores increased in the case of each factor. Significant mean increases were revealed for the semi-variable field experience group for degree of authoritarianism ($p < .05$) and preference for psychomotor educational objectives ($p < .05$). A significant mean increase in degree of authoritarianism ($p < .05$) was also found for the non-variable field experience group.

Since no significant difference existed between the pretest group means, the ANOVA was employed to determine if any significant differences existed between the posttest means of the three groups at the conclusion of the treatment field experiences. The ANOVA in Table 3 indicates no significant difference ($p > .15$) between the groups in the personality and attitudinal factors measured following variable, semi-variable, and non-variable field experiences, respectively.

Table 1

ANOVA for field experience groups on the pretests

Factor	Source	df	MS	F	p
Personality Scale	Between	2	.85	1.24	n.s.
	Within	62	.68		
	Total	64			
Objectives Preference	Between	2	150.04	1.88	n.s.
	Within	62	79.87		
	Total	64			
Teaching Style Preference	Between	2	4.54	.05	n.s.
	Within	62	83.45		
	Total	64			

F at .05 (2,62) = 3.15
F at .01 (2,62) = 4.97

Table 2

Comparison between pre- and posttest means for field experience groups

Group	Factor	Pretest Means	Posttest Means	t	p
Variable (N=20)	Personality Scale	3.58	3.82	-1.82[a]	<.10
	Objectives Preference	48.15	51.05	-1.57	n.s.
	Teaching Style Preference	78.85	81.70	-1.32	n.s.
Semi-Variable (N=25)	Personality Scale	3.22	3.44	-2.08[b]	<.05
	Objectives Preference	44.84	48.76	-2.45[b]	<.05
	Teaching Style Preference	78.20	76.96	1.03	n.s.
Non-Variable (N=20)	Personality Scale	3.26	3.56	-2.64[c]	<.05
	Objectives Preference	49.90	48.45	.65	n.s.
	Teaching Style Preference	77.90	76.35	.61	n.s.

[a] t at .10 (19) = 1.729
[b] t at .05 (24) = 2.064
[c] t at .05 (19) = 2.093

Table 3

ANOVA for field experience groups on the posttests

Factor	Source	df	MS	F	p
Personality Scale	Between	2	.94	1.25	n.s.
	Within	62	.75		
	Total	64			
Objectives Preference	Between	2	41.34	.47	n.s.
	Within	62	88.68		
	Total	64			
Teaching Style Preference	Between	2	175.91	1.88	n.s.
	Within	62	93.58		
	Total	64			

F at .05 (2,62) = 3.15
F at .01 (2,62) = 4.97

DISCUSSION

The results of this investigation are in general agreement with other studies which indicate that behavioral changes in pre-service teachers occur following experiential teacher education programs. Although it was evident that changes occurred within the groups following field experiences, these changes did not result in any significant difference between the groups attributable to degree of field experience variability. It may be that where different educational groups are calling for more varied field experiences, the expected outcomes of increased change in prospective teachers does not follow. Field experience alone, regardless of variability, may result in desired behavioral changes.

It is interesting to note that the semi-variable and non-variable groups increased significantly ($p<.05$) in degree of authoritarianism following field experiences. Increase in degree of authoritarianism for the variable group was nearly significant ($p<.10$). Increases in preference for cognitive, affective, and psychomotor objectives were elicited in the case of the variable and semi-variable groups; the variable group only, showed an increase in teaching style preference. These findings indicate a change in attitude from affective objectives toward psychomotor objectives preference and from informal, indirect related teaching styles toward direct, command-oriented teaching styles, respectively. It may be that most pre-service teachers enter a teacher education program with an unconventional, informal, equalitarian-liberal view and that following practical field experiences, their attitude or view becomes more conventional, authoritarian, and aggressive, having been exposed to real school settings. In this case, a series of field experiences may be advisable, regardless of variability. The so-called "menu" approach to providing field experiences through exposure to suburban, urban, and rural schools at different educational levels may not be sufficient to change behaviors (personality, attitude, values) or to effect quality teaching skills among pre-service physical education teachers.

This investigation was restricted to presage-type variables which are used essentially to describe the characteristics of teachers. Additional presage variables should be studied along with process variables (teacher behavior analysis) and product measures (curriculum development, student achievement). It is suspected that concentrated field experiences only, at a given educational setting and educational level will produce the kinds of behavioral changes desired in pre-service teachers with respect to knowledges, skills, attitudes, and values determined essential for effective teaching.

Within the limitations of the study and considering the selected personality and attitudinal variables, it was concluded that: (1) selected characteristics of pre-service physical education teachers - degree of authoritarianism, preference for cognitive, affective, and psychomotor objectives, and teaching style preference - are not significantly different for teachers completing field experiences at a variety of educational settings and levels than for those teachers completing field experiences with no variety; and (2) some changes in pre-service teachers' characteristics can be expected as a result of field experiences, regardless of degree of field experience variability.

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